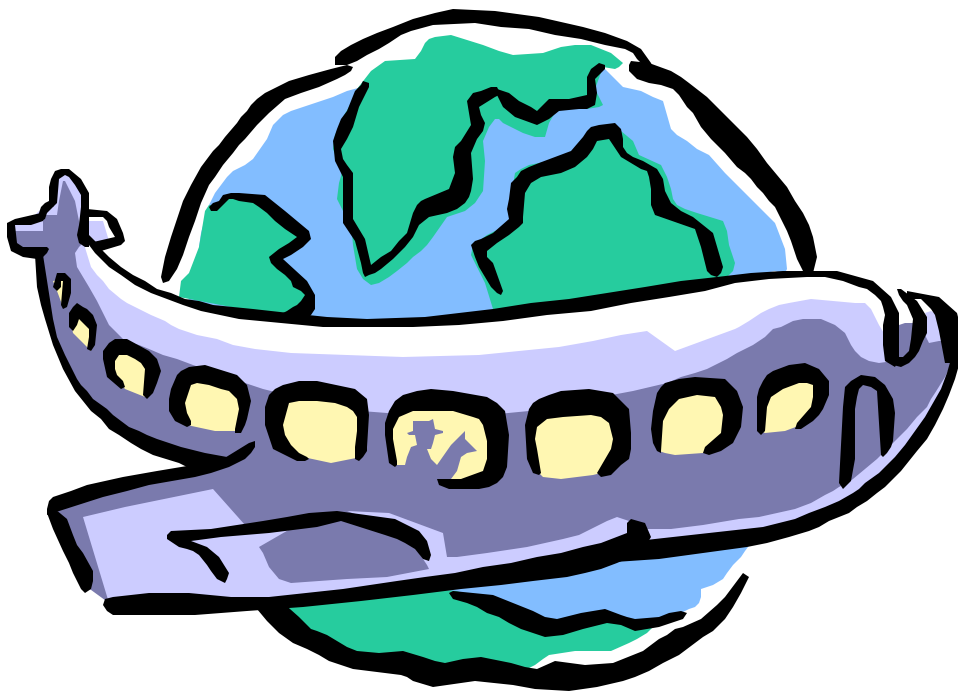


DER International Seminar



January 24-25, 2001
Best Western Golden Sails
Long Beach, CA

DER INTERNATIONAL SEMINAR

AGENDA
January 24-25, 2001

Wednesday, January 24

- 1. Registration (7:30-8:30)**
- 2. Welcome & Introductions of FAA Panel (8:30-9:00)**
Walt Dillon (AIR-4)
- 3. The Global Situation, Today's Global Regulatory Challenges, and Designees (9:00-9:30)**
Mary Cheston (AIR-4)
- 4. The DER's International Role (9:30-11:30 with 30 minute break)**
Carol Martineau (AIR-110)

LUNCH (1 hour)

- 5. BASA IPA Expectations for FAA & Designees (12:30-2:00)**
Mary Cheston

BREAK (30 minutes)

- 6. JAA Overview (2:30- 3:30)**
Peter Corbeel, Assistant to the Regulation Director, JAA
- 7. FAA/JAA Harmonized Regulations Today (3:30-4:30)**
Kristin Carpenter (ANM-110)
- 8. Audience Comments (4:30-5:00)**

Thursday, January 25

9. FAA/JAA Type Validation & Role of FAA Designees (8:30-10:00)

Tom Groves (ANM-116)

BREAK (30 minutes)

10. Understanding FAA's Delegation of Findings to Foreign Regulations (10:30-12:00)

Kevin Kendall (AFS-610)

LUNCH (1 hour)

11. Foreign Registered Aircraft (1:00-2:30)

Kevin Kendall (AFS-610)

BREAK (30 minutes)

**12. DER Activities Under the U.S./Canadian Memorandum of Understanding on
Acceptance of Repair Data (3:00-3:30)**

Mary Cheston (AIR-4)

13. Open Forum (3:30-4:30)

14. Wrap Up/Critique (4:30-5:00)

***The Global Situation, Today's
Regulatory Challenges, and
Designees***

DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001

OBJECTIVES

- ◆ Explain what has changed globally
 - Past v. current expectations
 - Serious FAA resource constraints
- ◆ Why is a seminar needed?
 - Back-to-basics refresher
 - New or updated policy
 - Civil Aviation Authorities concerns/expectations

The Past--U.S. Preeminence

- ◆ FAA regulatory system assumed single company with domestic suppliers
 - e.g., 14 CFR 21.43
 - Policy developed to accommodate international suppliers
- ◆ International acceptance of U.S. approvals without validation
- ◆ FARs were dominant global design standards

The Current--Global Interdependence

- ◆ FAA regulatory system is basis for many, but not all civil aviation authorities systems
- ◆ Sale/transfer of certificates across borders
- ◆ Manufacturing offsets have increased global supplier base
- ◆ ICAO safety audits and expectation that States will exercise their international responsibilities as States of Registry, Operator, etc.

Challenges of Global Manufacturing

- ◆ More complex and diverse projects creating additional burden to the FAA
 - e.g., joint ventures, expansion of int'l suppliers
- ◆ Other authorities' systems (and BAAs) set up to support domestic products, *not* expansion of U.S. industry
- ◆ Increased globalization of all international certification activities
 - (TCs, STCs, TSOs and manufacturing)

The Challenges (cont'd)

- ◆ Bilateral Agreements with 29 countries and others wish to have agreements
- ◆ Import products are approved based on bilateral validation using *minimum level of involvement*
 - Need to sustain confidence in each other's certification systems

The Challenges (cont'd)

- ◆ FAA workload with continued airworthiness for import products
 - About 400 TCs for import products
- ◆ Demands of aircraft leasing companies for FAA-approved alterations/modifications
- ◆ FAA has been examining how to effectively oversee this **dynamic environment**, given limited resources.

Expectations of the Past v. The Present

PAST EXPECTATIONS

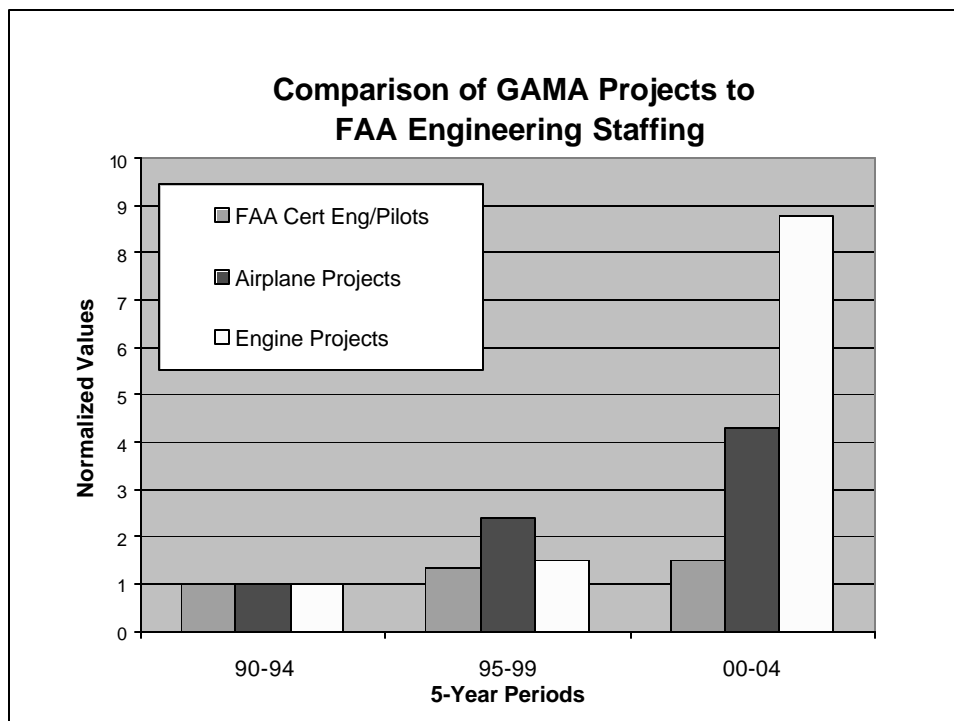
- ◆ FAR certification statement
- ◆ Export C of A based on FAA approval/TC
- ◆ DERs driving activities
- ◆ Some DER activities not accepted by bilateral partners
- ◆ Aircraft maintained to FAA requirements

PRESENT EXPECTATIONS

- ◆ JAR or other certification statement
- ◆ Identify and approve deviations from CAA type design upon export
- ◆ FAA controls activities
- ◆ Coordination of DER activities in another country
- ◆ Aircraft maintained to CAA requirements

Other Resource Demands

- ◆ Globalization is only one driver of Aircraft Certification Service workload.
- ◆ In 1999, a team examined new ways of doing business, how to “take things off” AIR’s plate
- ◆ **Challenge:** How to reduce the “Staffing Gap” between workload demand and actual staffing without jeopardizing fundamental **continued operational safety** responsibilities



Team Recommendations

- ◆ Implement program efficiencies
 - › streamlining measures
 - › eliminating some work
 - › shift FAA resources to higher priorities (continued airworthiness v. certification)

Some examples:

- › No certification of modifications with only military applications
- › **Increase the use of designees** for engineering reviews of:
 - field approvals
 - restricted category aircraft

Bilaterals--Foundation for Import/Export

- ◆ Based on authority-to-authority relationship
- ◆ Without a bilateral/working arrangement, no delegation of another authority's functions are possible to the FAA or designees
- ◆ Designees have been operating outside this framework, often without ACO knowledge/involvement
 - Complaints/questions from other authorities

Current Situation with Bilateral Commitments

- ◆ ***Nonstandardization within AIR in interactions and understanding of bilateral relationships***
 - *Import products - Usually through one office. Focus on engineering issues.*
 - *Export - From many offices with minimal regular involvement with CAA*
 - *Level of FAA project office involvement varies*
- ◆ ***Common understanding needed -***
 - *Bilateral commitments are EVERYONE's commitment.*
 - ***Educating AIR employees, industry and designees necessary***

New or Updated International Policy

- ◆ Order 8110.4B
 - STCs using foreign-registered test articles
 - Conformity inspection requests to bilateral CAAs
- ◆ Order 8110.37C
 - Designee notification policy when traveling
- ◆ AC-21-23A
- ◆ Pending Policy
 - Type Validation Order
 - Designee Policy--Orders 8110.8A and 8110.37D
 - Order 8100.XX (DDS)

Impact to DERs

- ◆ Any increased delegation of authority must be consistent with FAA's commitment in BASA Implementation Procedures for Airworthiness (IPAs)
- ◆ May increase performance expectations (e.g. finding of compliance to foreign regulations)
 - special authorization letter
- ◆ FAA plans to limit DER activity in some areas


SUMMARY

- ◆ Global aviation is a dynamic environment.
- ◆ Designees play a critical role in assisting the FAA to address these demands.
- ◆ This seminar is an attempt to review basic DER responsibilities and familiarize DERs with new policy in the international area.

The DER's International Role

•
•
•
•
•
•
•
•

The DER's International Role



DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001

• • • • • • • •

•
•
•

Objectives

- **Legal authority and relevant guidance**
- **DER's responsibilities**
- **FAA responsibilities**
- **DER with international authorization**
- **Summary**

2

DER International Seminar

• • • • • • • •

The DER's International Role

Legal Basis

Federal aviation act of 1958. (49 USC 44702(d))

(1) subject to regulations, supervision, and review the administrator may prescribe, **the administrator may delegate to a qualified private person**, or to an employee under the supervision of that person, a matter related to--

(A) the examination, testing, and inspection necessary to issue a certificate under this chapter; and

(B) issuing the certificate

(2) The administrator may rescind a delegation



3

DER International Seminar

AUTHORITY and GUIDANCE

Administrator (Law)

Title 49, U.S. Code §44702

Authorization (Regulations)

14 CFR
Parts 21, 183, & SFAR 36

Policy Sources (Orders)

8100.8, 8110.37, 8110.4,
& 8100.DDS

4

DER International Seminar

The DER's International Role

GUIDANCE [Cont'd]

- **Order 8100.8, "Designee Management Handbook for DERs, DARs/ODARs, and DMIRs"**



- Establish national policy on designee management

- Selection & appointment procedures
- Responsibilities and authorized functions
- Oversight (supervision/monitoring/tracking)
- Training
- Termination

Note: order 8100.8A cancelled 8130.24, termination order

5

DER International Seminar

GUIDANCE [Cont'd]

- **Order 8110.37, "Designated Engineering Representative (DER) Guidance Handbook"**



- A handbook of guidance, procedures, technical guidelines, and limitations of authority for designated engineering representative (DER)

- **Authority and limitations**
- **Administration**
- **Certification activities**

6

DER International Seminar

The DER's International Role

GUIDANCE [Cont'd]

- **Order 8110.4, "Type Certification"**

- Establishes the procedures for accomplishing the evaluation and approval of aircraft type design data and changes to approved type design data, including repair data



The procedures apply to all FAA/designee engineering personnel

7

DER International Seminar

GUIDANCE [Cont'd]

- **Order 8100.XX, "DAS, DOA, and SFAR 36 authorization procedures"**

- Establish national policy on management of DOA, DAS, and SFAR 36 delegated organizations



- Selection & appointment procedures
- Responsibilities and authorized functions
- Contents for a standard procedures manual
- Oversight (supervision/monitoring/tracking)
- Training
- Termination

Note: targeted to be released 3/01

8

DER International Seminar

The DER's International Role


DESIGNATIONS and PRIVILIGES

- Designated Engineering Representative (DER)
 - **By law, DERs work to support FAA certificates**
 - Title 49 USC § 40105 also provides for international agreements
 - DERs are authorized to approve technical data or to perform other authorized functions when they concern:
 - An approval for a type certificate (TC) & type design
 - Approval of a supplemental type certificate (STC)
 - Data approval for major alterations
 - Repair data on U.S. Registered aircraft

9

DER International Seminar

Basic Principles

- DERs must work on behalf of the FAA 
- DERs do not work directly for any other CAA in their FAA DER capacity

Note: DERs ARE NOT considered employees of the FAA while performing their delegated functions

10

DER International Seminar

The DER's International Role

•
•
•

Case Study #1

- A company DER has been contacted by a customer in France to approve a design change for their French registered aircraft. The DER's company holds the TC. The DER can approve this design on behalf of the French representative
 - True
 - False

11

DER International Seminar

•
•
•

Case Study #1 Answer

- **False** - Although the DER's company is the TC holder for the state of design for the aircraft, all DERs operate within their authorization on behalf of the FAA. The French customer must obtain approval from their CAA (DGAC)

12

DER International Seminar

The DER's International Role

DER/FAA Roles

- DERs must work on behalf of the FAA
 - FAA project work (e.g. Compliance findings for TC, STC)
 - FAA must accept delegation from CAA
 - FAA has the discretion to delegate to DER
 - DER works with FAA, not with CAA, for guidance
 - Major alterations, major repairs, and maintenance for FAA-approved facility (outside an FAA ACO project)
 - Alteration
 - Repair

13

DER International Seminar

DER Responsibilities



- Keep informed of FAA policy
 - Have access to foreign regulations & guidance materials (if authorized to make international findings)
- Follow guidance and direction of ACO
- Submit 8110-3's to ACO
 - Submit annual interaction tracking form
- Notify project ACO of travel outside the U.S. To make compliance findings or witness tests



14

DER International Seminar

The DER's International Role

DER RESPONSIBILITIES

(Do's and Don'ts)

- What DERs can do...
 - Perform only authorized functions within the limits of their designated authority as authorized by the FAA
 - E.G., Approve repair data only if authorization includes “special - major repairs”
 - Use their title (e.g. FAA DER) only when performing those functions specifically delegated by the FAA

15

DER International Seminar

DER RESPONSIBILITIES

(Do's and Don'ts) [Cont'd]

- DERs are **NOT** authorized to:
 - Perform surveillance on behalf of the FAA
 - Approve new/unproven technologies, equivalent level of safety findings, special conditions, or exemptions
 - This means design data either complies 100% or not. No “de facto” equivalencies or discretionary findings
 - Use form 8110-3 for anything except as a **DER** to make compliance findings on behalf of the FAA



16

DER International Seminar

The DER's International Role

•
•
•

FAA Responsibilities

- Determination of DER qualifications appropriate to their authorization
- Designee monitoring and supervision
- Provide necessary training
- Accept any foreign delegations of compliance findings
- Advise designees on CAA requirements, as applicable
- Notify CAAs of any designee travel to do work in another country

17

DER International Seminar

•
•
•

DER WITH INTERNATIONAL AUTHORIZATION

- Prospective designees must have established significant knowledge and experience in finding compliance to the FARs and have a good working relationship with the FAA **BEFORE they are appointed as a DER**
- Only qualified designees, e.g. Those who have gained experience with the other CAA's requirements based on validation programs, would be authorized to make findings and approve compliance data to foreign regulations

18

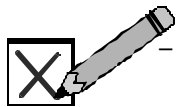
DER International Seminar

The DER's International Role

DER WITH INTERNATIONAL AUTHORIZATION

[continued]

- FAA notification of this special authorization will be by letter
 - Decision is made by the FAA only, depending on designee's capabilities, availability of resources and FAA need for assistance
 - Delegation is based on FAA "need" not "industry customer" need
 - Special authorization will be recorded in DIN



SPECIAL AUTHORIZATION

19

DER International Seminar

DER WITH INTERNATIONAL AUTHORIZATION

[continued]

Prerequisites:

- Knowledge of CAA requirements
- Access and availability to CAA requirements
 - Designees must be familiar with and have ready access to all appropriate publications and documents. Designees may not perform any functions until the required documents are obtained



20

DER International Seminar

The DER's International Role

•
•
•

DER WITH INTERNATIONAL AUTHORIZATION

[continued]

- Approve data in accordance with the authority granted by the FAA
 - Make findings consistent with the CAA's requirements
- Obtain clarifications on the delegation, methods of compliance, approval, etc from the FAA
 - **No independent contact with the CAA**
- All designee procedures, processes, record keeping, tracking, etc. equally apply

21

DER International Seminar

•
•
•

Case Study #2

- A DER has just completed approving data for a prototype installation on a South African registered aircraft in support of an FAA STC. The DER should document this effort on their interaction tracking form, 8110-29
 - True
 - False

22

DER International Seminar

The DER's International Role

•
•
•

Case Study #2 Answer

- **True** - The DER should document all interactions between them and the FAA. Failure to do so could be cause for termination due to inactivity

23

DER International Seminar

•
•
•

DER WITH INTERNATIONAL AUTHORIZATION

[continued]



- Use **FAA form 8110-3** to approve or recommend approval of compliance with FARs (or CAA regulations as authorized by the ACO)
 - Signature or use of any other form, including CAA forms, is against the authorization contained in order 8110.37

24

DER International Seminar

DER International Seminar - January 24-25, 2001

The DER's International Role

KINGDOM OF SAUDI ARABIA
Ministry of Defense and Aviation
Directorate of Civil Aviation
Aviation Standards and Safety

STATEMENT OF COMPLIANCE WITH THE PCA/FAA REGULATIONS

APPLICANT: [] TYPE OF DATA: [] DATE: []

SIGNATURE: [] DATE: []

PCA - FRO Form 81103

RENEWAL and TERMINATION

- Renewal of appointment is at the option and sole discretion of the FAA
 - FAA will evaluate DERs for any unauthorized activity
 - Feedback from CAAs on DER activity will be considered
- Misconduct, inactivity, or lack of care, judgment or integrity are conditions for termination

26

The DER's International Role

•
•
•

DER Issues - Foreign Travel

- Compliance findings/test witnessing for the FAA outside the U.S.
 - Notification to ACO for project activity
 - Notification to Flight Standards International Field Office for repair station activity
 - ACO will notify CAA in writing
 - Acceptance of designee visit (if Italy or France)
 - DER's must notify project ACO of any deficiency/nonconformity
 - ACOs to provide feedback to foreign authorities if deficiency/nonconformity

27

DER International Seminar

•
•
•

TYPES of INTERNATIONAL ACTIVITIES

- TC/STC activity
 - FAA may delegate findings to properly qualified and authorized DER(s)
 - Follow policy contained in orders 8110.37/8110.4
- Repairs and alterations (non-project work)
 - Alteration with approved data or to support a field approval (US-registered only)
 - Approval of repair data IAW bilateral or MOU with another CAA

28

DER International Seminar

The DER's International Role

•
•
•

SUMMARY

- **FAA is responsible for the activities and decisions made by DERs**
 - Certification efforts on behalf of another CAA can only be achieved through adherence to requirements/expectations
- **Continued international confidence in the FAA designee system depends on DER/FAA communication and cooperation**

29

DER International Seminar

• • • • • • • •

**KINGDOM OF SAUDI
ARABIA**

**Ministry of Defence and Aviation
Presidency of Civil Aviation**



المملكة العربية السعودية
وزارة الدفاع والطيران
رئاسة الطيران المدني
إدارة سلامة الطيران والمقاييس

STATEMENT OF COMPLIANCE WITH THE PCA/FAA REGULATIONS

DATE

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

MAKE

MODEL NO.

TYPE (Airplane, Radio, Helicopter, etc.)

NAME OF APPLICANT

IDENTIFICATION

LIST OF DATA

PURPOSE OF DATA

APPLICABLE REQUIREMENTS (List specific)

CERTIFICATION - Under authority vested by direction of the PCA and in accordance with conditions and limitations of appointment under Part 183 of the Federal Aviation Regulations, data listed above and on attached sheets numbered _____ have been examined in accordance with established procedures and found to comply with applicable requirements of the PCA/FAA Regulations

I (We) Therefore

☐ Recommend approval of these data

☐ Approve these data

SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)

DESIGNATION NUMBER(S)


CLASSIFICATION(S)

•
•
•
•
•
•
•
•

BASA Implementation

Procedures for Airworthiness:

Expectations for FAA & Designees



DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001

1

• • • • • • • •

•
•
•

Objectives

- Understand
 - BASA Implementation Procedures for Airworthiness (IPA)
 - Where delegations have been made to the FAA
 - Expectations for industry

2

DER International Seminar

• • • • • • • •

•
•
•

Bilateral Agreements

- Bilateral agreements must be in place in order for the FAA to be able to certificate and import civil aeronautical products designed and manufactured in another country.
 - 14 CFR 21.29, 14 CFR 21.502, 14 CFR 21.617

3

DER International Seminar

•
•
•

Bilateral Agreements

- Bilateral agreements are two-way *reciprocal* agreements, committing the FAA to actions regarding exports; even the oldest BAAs refers to “exporting State & importing State”
 - AIR uses the same State-to-State philosophy embodied in the ICAO convention when dealing with any civil aviation authority (CAA).

4

DER International Seminar

DER International Seminar - January 24-25, 2001
BASA IPA Expectations for FAA and Designees

•
•
•

Current Bilaterals

Argentina	France	Poland
Australia	Germany	Romania
Austria	Indonesia	Russia
Belgium	Israel	Singapore
Brazil	Italy	South Africa
Canada	Japan	Spain
China	Malaysia	Sweden
Czech Republic	Netherlands	Switzerland
Denmark	New Zealand	United
Finland	Norway	Kingdom

5

DER International Seminar

•
•
•

Bilateral Aviation Safety Agreement

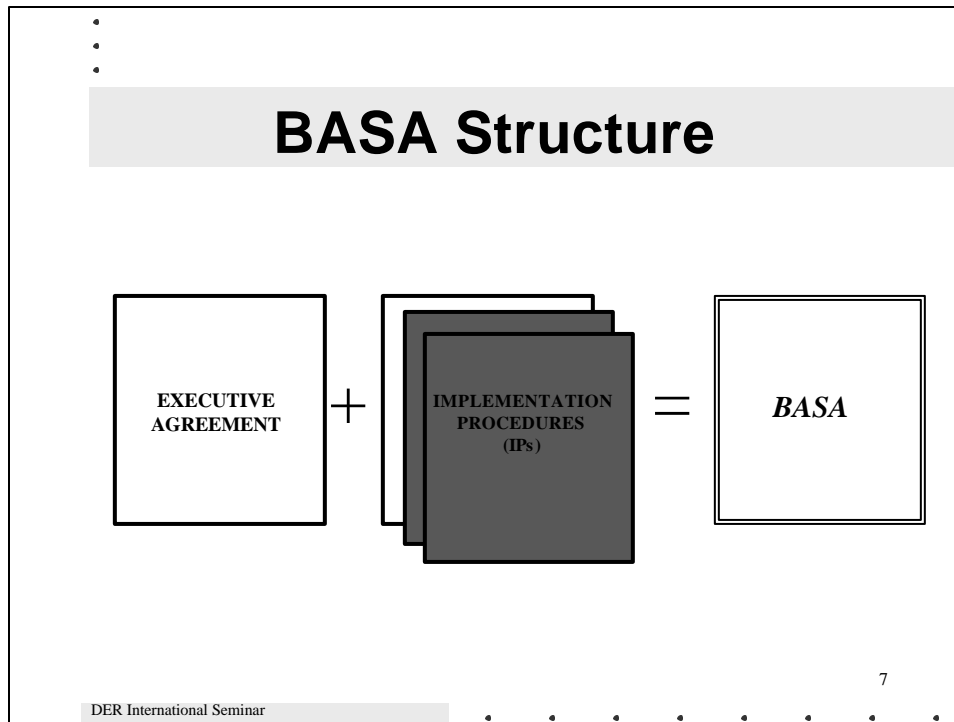
- As of January 1996, the U.S. government no longer negotiates bilateral airworthiness agreements (BAAs). Their replacement is the Bilateral Aviation Safety Agreement (BASA).
- All BAAs will eventually be converted to this new format.

6

DER International Seminar

DER International Seminar - January 24-25, 2001

BASA IPA Expectations for FAA and Designees



⋮

BASA Implementation Procedures

Individual BASA IPs can cover a variety of aviation safety topics, e.g.

- acceptance of repair station certifications
(*Maintenance Implementation Procedures or MIP*)
- maintenance personnel
- pilot licensing
- simulator certifications (*Simulator Implementation Procedures or SIP*)

Not all countries will necessarily have the same IPs.

8

DER International Seminar

•
•
•

BASA IPs (cont.)

Benefits: IPs can be customized for each country; easier for the FAA to revise, negotiate, etc.

--require internal FAA coordination only

9

DER International Seminar

•
•
•

BASA IPA

BASA IPA =
BASA Implementation
Procedures for Airworthiness

*For current agreements, see AIR-4 webpage:
<http://www.faa.gov/avr/air/air4/Baalst.htm>*

10

DER International Seminar

•
•
•

JAA Acceptance of IPAs

JAR 21 N5 Arrangement

- JAR-21 N5 requires an Arrangement document for the *import* of products into JAA member countries.
- JAR-21 N6 states that the Arrangement document may take the form of Implementation Procedures for Airworthiness.
 - The implementation date for JAR-21 was June 1, 1999.
 - Country-specific IPAs will be signed by the FAA and individual national aviation authority (NAA), not FAA/JAA.

11

DER International Seminar

•
•
•

BASA IPA Topics

- I - General Provisions & Principles
- II - Scope
- III - Working Procedures
 - Design Approval Procedures
 - Serial Production & Surveillance Activities
 - Export Airworthiness Approval Procedures
 - Post-Design Approval Procedures
- IV - Technical Assistance
- V - Special Arrangements

12

DER International Seminar

•
•
•

IPA Highlights

Main Focus

- BASA IPA implements the AIR policy of working “Authority-to-Authority” under the bilateral agreement.
- It may mean a change in the way we have conducted validation programs.

13

DER International Seminar

•
•
•

IPA Highlights

Section I General

- IPA “authorization” is the BASA Executive Agreement.
- Defines IPA purpose:
 - To define the products/parts eligible for import, and
 - To define the interface between authorities.

14

DER International Seminar

•
•
•

IPA Highlights -- Section I

Section I General

- Fundamental Principle:
To maximize the use of the exporting authority's **system** during the importing authority's validation of a product.

15

DER International Seminar

•
•
•

IPA Highlights -- Section I

Section I General

- For JAA members, the IPA includes recognition of use of "JAA system."
 - Use of other airworthiness authorities allowed in making findings of compliance (par. 1.2.2)
 - Must comply with certain conditions (par. 1.2.2.0)
 - Bilateral partner assumes responsibility for the validation process if a joint JAA team is used. (par. 1.2.3)

16

DER International Seminar

•
•
•

IPA Highlights -- Section I

Section I General

- Recognizes each other's delegation, designee, and organization approval systems (par.1.2.1)
 - Requires authority-to-authority coordination of designee/delegated organization visits for *conformity inspections* and when making *compliance findings or witnessing tests*.

17

DER International Seminar

•
•
•

IPA Highlights -- Section II

Section II Scope

- Scope defines
 - products, parts, & appliances, and their approvals, accepted for import by each country.
 - each country's acceptance of design changes by TC holder, design data for repairs, environmental approvals, and
 - acceptance of requests for technical assistance.
- Scope will vary between IPAs, based on prior BAAs and current assessments of bilateral partners. Future IPAs may include reciprocal acceptance of environmental approvals.
 - Currently only in Canadian IPA

18

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approval Procedures

- Longthiest and most-detailed section.
- Procedures emphasize authority-to-authority principle.
- Close cooperation in all aspects of validation program.
- Communications should occur authority-to-authority, with few exceptions.

19

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approval - TC

- Application for **BASA Partner** (CAA) type certification:
 - Application from U.S. company goes to FAA ACO;
 - ACO checks application for completeness;
 - ACO forwards to BASA Partner.

20

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approval - TCs

PROCESS:

- The FAA/JAA Type Validation Principles have been incorporated into the IPA (par. 3.0.1.2) for JAA members
 - Up front definition of level of involvement
 - Identification of retained items
 - Otherwise, full delegation to the certifying authority

21

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approval - TCs

- Exporting authority coordinates familiarization and technical meetings, if any.
- Communication is expected to be between the exporting and importing authorities
 - may include postponement of meetings if both authorities are not represented
 - designee/CAA contacts limited

22

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III TC Procedures

- Certification Basis -
 - (for products already certificated) based on date of application to the exporting authority (*par. 3.0.1.3*).
 - (for new products) based on date of application to the importing authority.
- *Earlier IPAs may differ.*

23

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III TC Procedures

- Once the importing authority's Certification Basis is established, certifying/exporting authority makes findings to that basis.
 - For a U.S. design, this could mean findings to foreign regulations (e.g. JARs) when product is to be exported.

24

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approval - STCs

- New provision: Exporting authority's STCs now accepted on exporting authority's own products (*par. 3.0.2*)
- Importing authority will issue STC when exporting authority is State of Design for the STC and has already issued its STC.

Note: German and Canadian IPAs include expanded scope (acceptance of STCs on U.S. products.)

25

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approvals - STCs

- STC validation procedures are the same as those for TC validation, adjusted accordingly.
- STC package is expected to include:
 - compliance checklist
 - AFM supplements
 - Master documentation/drawing list
 - Maintenance/Repair manual supplements
 - weight and balance data
 - Instructions for Continued Airworthiness

Note: This is a validation.

26

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approvals - STCs

- U.S. company makes application for BASA Partner STC to FAA ACO.
- ACO will forward application to BASA Partner.
 - Package should be complete (per slide 26).
- STC validation procedures same as those for TC, adjusted accordingly.

27

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approvals - TSO Articles

- FAA Letters of TSO Design Approval:
 - Application through BASA Partner;
 - BASA Partner must contact FAA for latest technical policy and procedures.

28

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Design Approvals - TSOs

- TSO/JTSO - when these are identical, FAA or NAA may issue without further investigation (*par. 3.0.3*)
- ACO must provide a certifying statement to the JTSO (*par. 3.0.3.1(b)(1) (iv)*)

29

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Production & Surveillance

- Production quality system
“expectations” are listed (*par. 3.1*)
 - Manufacturer and supplier surveillance
 - Supplier surveillance outside the exporting country
 - Routine surveillance may be delegated to BASA Partner
 - May seek assistance from CAA of third country if bilateral in place.

30

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III

Export Airworthiness Approval Procedures

- Acceptance of Export C of A and airworthiness approval tags (FAA 8130-3/JAA Form One, etc.).
 - On Export C of A for aircraft, engine or propeller, need statement of conformance to importing authority's requirements

31

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III

Export Airworthiness Approval Procedures

- If Export C of A exceptions, must have written acceptance from the importing authority before issuance (*par. 3.2.2*)
- Used aircraft are accepted by FAA and BASA Partner under IPA.

32

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Post Design Approval Procedures

- Continued Airworthiness (*par. 3.3.0*)
- Post-TC Design Changes:

Defines involvement of the importing authority in any design changes by the TC holder.

33

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III Post Design Approval Procedures

- For JAA members, FAA/JAA Post Type Validation Principles for Design Changes have been incorporated (*par. 3.3.1*)
 - Categories of changes (level 1, etc.)

34

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III

Post Design Approval Procedures

- Approval of design data used in support of repairs
 - TBD for JAA countries (outcome of joint Repair Data Working Group);
 - FAA approvals accepted in other IPAs (e.g. Russia, Canada).

35

DER International Seminar

•
•
•

IPA Highlights -- Section III

Section III

Post Design Approval Procedures

- Transfers of U.S. TCs/STCs:
 - Requires transfer of State of Design Responsibilities;
 - FAA ACO will notify BASA Partner, and develop procedures for transfer;
 - Each transfer on case-by-case basis through special arrangement which identifies authorities' responsibilities.

36

DER International Seminar

•
•
•

IPA Highlights -- Section IV

Section IV Technical Assistance

- Types of technical assistance requests listed (par. 4.0)
 - witnessing tests
 - performing conformity inspections
 - reviewing reports
 - obtaining data
 - witnessing first article inspection,
 - surveilling production quality systems, etc.
- Specific processes for witnessing of tests and conformity inspections (par. 4.1 and 4.2)

37

DER International Seminar

•
•
•

IPA Highlights -- Section IV

Section IV Technical Assistance

Requests from FAA

- ACO sends requests for *witnessing of tests* to the BASA Partner.
 - No DER/DAS requests - Must be authority-to-authority
- MIO sends initial requests for *conformity inspection support* to BASA Partner.
 - No DER/DAS requests
 - Subsequent specific requests from MIDO

38

DER International Seminar

•
•
•

IPA Highlights -- Section IV

Section IV Technical Assistance

- Protection of Proprietary Data
 - Data submitted by a design approval holder cannot be released without written consent of the design approval holder, as provided to the authority.

39

DER International Seminar

•
•
•

IPA Highlights -- Sec. V & VI

Section V Special Arrangements

- Provides opportunity to supplement the IPA for unique projects/situations.
 - Could be a Directorate working procedure, coordinated with AIR-4
- Section VI Authority (Signatures)
- Appendices -- *Addresses, Referenced Documents, List of Special Arrangements*

40

DER International Seminar

·
·
·

Impact on Industry Procedures

Authority-to-authority communication:

FAA, not industry:

- transmits applications for validation
- coordinates TC familiarization meetings
- submits requests for technical assistance to BASA partner CAA
- coordinates designee/delegated organization work prior to activity in BASA partner's country

41

DER International Seminar

·
·
·

Impact on Designee Procedures

Designees:

- Must notify ACO early of planned international work
- May be delegated findings to foreign regulations, if approved by ACO
- Work through managing ACO to ensure authority-to-authority communication.

42

DER International Seminar

Other Relevant International Procedures

- In addition to IPAs and BAAs, the FAA has concluded special arrangements to address specific countries' importing requirements
 - e.g., Commonwealth of Independent States (Aviation Register of IAC)
- Requires FAA involvement in transmittal of applications for validation

43

DER International Seminar

Summary of BASA IPs

<u>SIGNED</u>	<u>EXECUTIVE AGREEMENTS</u>	<u>IPs</u>
1. Austria	Signed 1/14/97	
2. Canada	Signed 6/12/00	IPA signed 10/18/00
3. Denmark	Signed 11/6/98	
4. Finland	Signed 10/00	
5. France	Signed 5/14/96	MIP signed 10/14/99
6. Germany	Signed 5/23/96	MIP signed 6/6/97 IPA signed 8/23/99
7. Ireland	Signed 2/5/97	MIP signed 4/20/99
8. Israel	Signed 12/18/00	IPA pending (2/01)
9. Italy	Signed 10/23/99	
10. Malaysia	Signed 5/28/96	IPA signed 11/3/97

(Continued)

44

DER International Seminar

DER International Seminar - January 24-25, 2001
BASA IPA Expectations for FAA and Designees

•
•
•

Summary of BASA IPs		
<u>SIGNED</u>	<u>EXECUTIVE AGREEMENTS</u>	<u>IPs</u>
11. Netherlands	Signed 9/13/95	
12. <i>Russia</i>	<i>Signed 9/2/98</i>	<i>IPA signed 12/9/98</i>
13. Spain	Signed 9/99	
14. Switzerland	Signed 9/26/96	SIP signed 5/19/99
15. Sweden	Signed 2/9/98	
16. United Kingdom	Signed 12/20/95	SIP signed 11/5/97

45

DER International Seminar • • • • • • • •

•
•
•

Status of Activities with Other Countries
<ul style="list-style-type: none">• Five additional IPAs are pending:<ul style="list-style-type: none">– Israel, Brazil, Romania, France, and Netherlands• FAA will start technical assessment activity for a new agreement with Taiwan in FY 2001<ul style="list-style-type: none">– Will draft IPAs for U.K., Italy, and New Zealand (sign in 2002).

46

DER International Seminar • • • • • • • •

•
•
•

SUMMARY

- IPA is a detailed document that governs AIR interactions with a Bilateral Partner
 - binding on both authorities as well as industry
 - authority-to-authority communication
- International activities are more than a business relationship
 - Designee actions can affect mutual confidence on which bilaterals are based.

47

DER International Seminar

•
•
•

Additional Guidance

[See Advisory Circular 21-23A, "Airworthiness Certification of Civil Aircraft, Engines, Propellers and Related Products Imported to the United States" for more information on bilateral agreements and import procedures.]

48

DER International Seminar

JAA Overview



Presentation for FAA DER Seminar on International Issues
January 2001

CONTENTS

- WHAT IS JAA
- HISTORY
- MEMBERSHIP
- ORGANISATION
- FUNCTIONS
- ACHIEVEMENTS
- FUTURE

JAA Overview

What is JAA?

- “club” of Aviation Authorities
- Joint Rulemaking
- Automatic Mutual Recognition of Certificates
- Joint Certification (design of products)

FAA DER International Seminar

3

CHRONOLOGY

1970 - work started to develop JAR-25
Industry Initiative

1979 - first “Arrangements” signed
(Airworthiness only)

1989 - JAA Associated Body of ECAC

1990 - current “Arrangements” signed
(all Rules and Joint Procedures)

1991 - EU Regulation 3922/91 adopted

2000 - Agenda for Change

FAA DER International Seminar

4

JAA Overview

JAA - “Cyprus Arrangements”

- General Commitments
- Functions of JAA
- Commitments of Authorities:
 - Participation with resources (best endeavours)
 - Adopt Joint Aviation Requirements (JARs) as sole codes
 - Deletion of National Variants
 - Define joint procedures and use them exclusively
 - Contribute share of funding

FAA DER International Seminar

5

EU REGULATION 3922/91

“Harmonisation of Technical Requirements and Administrative Procedures in the Field of Civil Aviation”

- Effective 1 January 1992
- Amended May 1999

FAA DER International Seminar

6

JAA Overview

EU REGULATION 3922/91

- All EU Members join the JAA
- All EU Members adopt JARs
- All must accept Products, Organisations and Personnel certificated to common Rules
- Process for adoption of new JARs and Amendments to JARs
- All must co-ordinate Safety Research

FAA DER International Seminar

7

JAA OBJECTIVES

- High Consistent Level of Aviation Safety
- Cost-Effective Safety System so as to Contribute to efficient Aviation Industry
- Contribute to Fair and Equal Competition
- Promote JAA system World-wide

FAA DER International Seminar

8

JAA Overview

MEMBERSHIP

- Open to ECAC States (38 today)
- Takes Effect when 1990 Cyprus "Arrangements" are Signed
- 33 JAA Members (11 "Candidates")

FAA DER International Seminar

9

JAA AND EU MEMBER STATES

Bulgaria
Cyprus
Czech Republic
Estonia
Hungary
Iceland
Latvia
Republic of Moldova
Malta
Monaco
Norway
Poland
Romania
Slovak Republic
Slovenia
Switzerland
Turkey
Former Yugoslav Republic of Macedonia

Austria
Belgium
Denmark
Finland
France
Germany
Greece
Ireland
Italy
Luxembourg
Netherlands
Portugal
Spain
Sweden
United Kingdom

EU

full members

JAA Overview

TWO-PHASE MEMBERSHIP

Candidate Status

- Full Access to JAA Documents and Bodies (JAAC, Sectorial Teams, WG's)
- Limitations
 - No Voting Rights
 - No Automatic Recognition of Approvals

Full Membership

FAA DER International Seminar

11

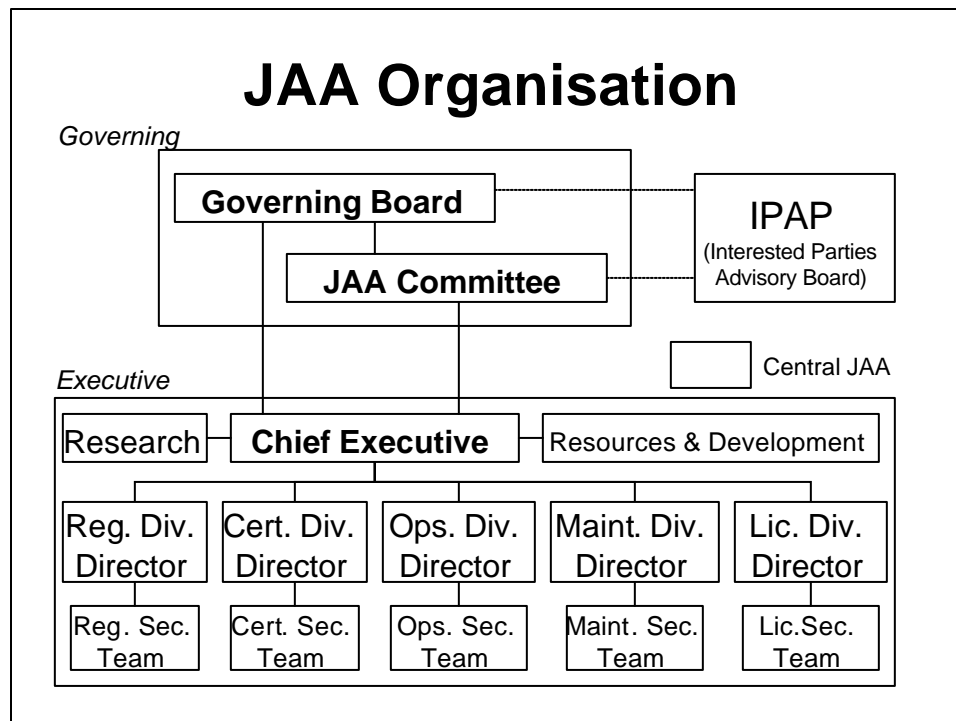
JAA ORGANISATION

- National Authorities
- JAA Bodies
- Central JAA

FAA DER International Seminar

12

JAA Overview



JAA ORGANISATION

Roles and Responsibilities of the NAA

- **IMPLEMENTATION**
 - Transpose JAR's in national rule
 - Legal Responsibility for Approvals, Certification, Licences
 - Final Decisions on Safety Issues
- **RESOURCES**
 - Committees, Working Groups, Teams

JAA Overview

JAA ORGANISATION

Central JAA Functions

- Manage, Facilitate, Co-ordinate and Contribute to Regulation Process
- Manage, Facilitate, Co-ordinate and Contribute to Standardisation Process
- Arrange and Manage Harmonisation
- Lead on development of Procedures

FAA DER International Seminar

15

JAA Functions:

- Rulemaking
- Implementation
- Standardisation

FAA DER International Seminar

16

JAA Overview

Rulemaking

- Drafting by Working Group
- Sectorial Team (Cert., Maint., Ops., Lic., Reg.)
- Regulation Sectorial Team
- Notice of Proposed Amendment (NPA)
- Comment/Response
- Adoption by JAAC (consensus)
- (National adoption / EU regulation)

FAA DER International Seminar

17

IMPLEMENTATION

- Develop Joint Implementation Procedures
- Technical findings: - national teams
- joint teams (all validation)
- legal findings: NAA's

FAA DER International Seminar

18

JAA Overview

STANDARDISATION

- Ensure NAA's apply Common Standards Consistently
- Teams Staffed by NAA
- Teams and Visits Managed and Arranged by Central JAA
- Problems Handled by Central JAA; Decisions by JAAC

FAA DER International Seminar

19

ACHIEVEMENTS

JAA REQUIREMENTS

Airworthiness: JAR-1, 21, 22, 23, 25, 27, 29, E, P, APU, TSO, VLA, AWO

Maintenance: JAR-145, -66, -147

Operations: JAR-OPS (1&3), JAR-STD (-1A, -2A, -3A), JAR-26

Licensing: JAR-FCL (Part 1, 2, 3 & 4)

Environment: JAR-36

JAR-MMEL/MEL

FAA DER International Seminar

20

JAA Overview

ACHIEVEMENTS

JOINT CERTIFICATION

- 50 projects approved
- 50 running

FAA DER International Seminar

21

ACHIEVEMENTS

JAR-145 APPROVALS

Europe:	2000
USA:	1170
Canada:	90
Rest of World:	70
Total:	3330

FAA DER International Seminar

22

JAA Overview

Agenda for Change

- JAA maturing & has outgrown original scope/form
- Reorganisation for efficiency improvement
- Major changes:
 - Sectorial teams
 - management system

FAA DER International Seminar

23

Agenda for Change (cont.)

- Observes current JAA Arrangements
- Adapted towards future EASA
- Implementation: mid 2000 - mid 2001

FAA DER International Seminar

24

JAA Overview

European Aviation Safety Agency (or Authority ?)

- June 2000 - European Transport Ministers decided EASA to be an agency to European Community
- 15 EU members only, but other States can associate
- EU Regulation to establish EASA
- Fit in Community Institutional structure

FAA DER International Seminar

25

EASA

- Rulemaking
 - essential rules: Council, Parliament
 - implementation rules: Commission
 - Means of Compliance: Agency
- Implementation: Type Certification (all products)
- Transition JAA - EASA to be reviewed

FAA DER International Seminar

26

JAA Overview

FAA/JAA Relationship

- Executive level meetings
- Active harmonisation initiatives
- Streamlining process for product acceptance (Type & post-Type Validation Principles)
- Negotiating generic BASA implementation procedures (MIPs, SIPs, IPAs)

FAA DER International Seminar

27

FAA/JAA Relationship

JAA and any successor agency will continue to work with FAA to achieve the vital shared goal of providing safe standards for aeronautical products

FAA DER International Seminar

28

•
•
•
•
•
•
•
•
•

FAA/JAA Harmonized Regulations Today



DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001

1

• • • • • • • •

•
•
•

Objectives

- Status of the Harmonization Work Program
 - part 23, part 25, parts 27 and 29, part 33, part 35, part 21 APU TSO, part 34, part 36
- Plan for Maintaining Harmonization
- Single Worldwide Certification Standards and Process
- Harmonization of Repair Stations

2

DER International Seminar

• • • • • • • •

•
•
•

Harmonization

- The Harmonization Work Program (HWP) was initiated in 1992 resulting from the 9th FAA/JAA Harmonization Meeting
- Significant Regulatory Differences (SRDs)
- Harmonization Terms of Reference (TORs)
 - Document used to coordinate a proposed HWP activity between FAA/JAA/Harmonization Management Team (HMT)

3

DER International Seminar

•
•
•

CFR part 23 Small Airplanes

- Part 23 is largely harmonized with a few exceptions (9 SRDs remaining)
- NPA 23-6 (Feb99) proposed changes to JAR-23 - if adopted, two SRDs will be cleared
- Occupant Protection
- Propulsion systems on Part 23 airplanes

4

DER International Seminar

•
•
•

CFR part 23 Small Airplanes

- FAA TORs developed for new/needed part 23 rulemaking but not tasked
 - Standardization of Improved Small Airplane Normal Category Stall Characteristic Requirements
 - Change in the Dihedral Effect Sub-Requirements of Static Directional and Lateral stability
 - Systems: commuter brakes, 23.1309, electronic displays, pitot heat indication, redundant power sources
 - Miscellaneous Changes

5

DER International Seminar

•
•
•

CFR part 25 Transport Airplanes

- 1999/2000 Accomplishments
 - Retasked the original 42 SRDs under ARAC Fast Track
 - Tasked approximately 80 additional regulatory differences under ARAC Fast Track to try to fully harmonize part 25
 - Tasked Flight Crew Error/Flight Crew Performance (Human Factors)
 - Tasked Design for Security to address ICAO Amdt 97, Annex 8

6

DER International Seminar

⋮

CFR part 25-Future TORs

- TORs pending development
 - Nose Wheel Steering, 25X745
 - Fuel Jettisoning Requirements, 25.1001
 - Low Fuel Qty/Engine Failure Indication, 25.1305
 - Engine Cowl Retention, 25.1193
 - Remote Occupied Compartments, 25.819

9

DER International Seminar

⋮

CFR part 27 and 29 Helicopters

- Virtually Harmonized
 - Gross Weight Increase for part 27
 - FAA Final Rule published, Amendment 27-37 effective October 18, 1999
 - JAR 27, Change 1 adopted December 1999
 - External Loads for part 27 and 29
 - FAA Final Rules published, Amendments 27-36 and 29-43 effective October 5, 1999
 - JAR 29, Change 1 adopted December 1999

10

DER International Seminar

•
•

CFR part 27 and 29 Helicopters

- Critical Parts for part 27 and 29
 - FAA Final Rules published, Amendments 27-38 and 29-45 effective October 25, 1999
 - JAA adoption delayed
 - Previously withheld coordination on their final rule
 - Have now agreed to support the rule change
 - Plans to propose a new working group to explore strengthening of the critical parts rule and definition as to when a critical parts plan will be required

11

DER International Seminar

•
•

CFR part 27 and 29 Helicopters

- Harmonization Initiatives to improve the FAR and JAR
 - Rulemaking (tasked April 2000)
 - Damage Tolerance for Metallic Structure
 - Damage Tolerance for Composite Structure
 - Non-Rulemaking (Not tasked)
 - Yaw Maneuvers (Structural Substantiation)
 - Night Vision Goggles
 - Fly-by-Wire; Fly-by-Light
 - Equipment, Systems and Installations

12

DER International Seminar

⋮
CFR part 27 and 29
Helicopters

- Performance and Handling Qualities
 - Working group has submitted a draft NPRM to the FAA for internal coordination
 - Are awaiting Economic Review

13

DER International Seminar

⋮
CFR part 33/JAR E
Engines

- Current Harmonization Work Program Nearing Completion
- Limited harmonization
 - FAA and JAA Tracking SRDs and non-SRDs
- While part 33/JAR E read very differently, the authorities and industry have made agreements to accept each others' certification

14

DER International Seminar

⋮

CFR part 33 Engines

- Developing a New HWP Having a Safety Focus
 - Critical Parts Control, Sections 33.14/E 515)
 - TOR approved, Tasking under development
 - Bird Ingestion Phase II, Sections 33.76/E 800
 - TOR approved, Tasking under development

15

DER International Seminar

⋮

CFR part 35 Propellers

- Propeller HWP Complete
 - Complete Re-Write of Part 35/JAR-P with advisory material complete
 - Products accepted by ARAC TAEIG 2/00 and forwarded to FAA 3/00 for final rulemaking

16

DER International Seminar

⋮
CFR part 21 TSO
Auxiliary Power Unit (APU)

- APU HWP Complete
 - Harmonization of technical requirements complete
 - Draft TSO accepted by ARAC and forwarded to FAA 10/99
 - Federal Register Notice of Availability Published 2/4/00
 - JAA may pursue Type Certificate as their approval process for APUs

17

DER International Seminar

⋮
CFR part 34
Emissions Standards

- FAA developed Engine Exhaust Emission Certification Procedure & Guidance Advisory Circular (AC 34-1)
- AC 34-1 at JAA for review & coordination
- FAA offered assistance to develop JAR-34

18

DER International Seminar

•
•
•

CFR part 36 Noise Standards

- The FAA, JAA, and ICAO have been jointly working toward harmonized standards.
- Status:
 - Small Airplane Final Rule - Oct 1999
 - Large Airplane Subsonic Jet NPRM - June 2000
 - Helicopter NPRM - recommendation received from ARAC 8/23/00

19

DER International Seminar

•
•
•

Maintaining Harmonization

- Hurdles identified at the 16th Annual FAA/JAA International Harmonization Conference in 1999
 - Maintaining harmonized regulations
 - Keeping Means of Compliance harmonized
- HMT Preliminary Plan developed Oct 1999

20

DER International Seminar

⋮

Maintaining Harmonization

- Principles
 - Harmonization should be considered an integral part of the development of rules and advisory material
 - Rulemaking initiatives, including those resulting from accidents/incidents, should be harmonized
 - Deviation from the harmonization process should be the exception, and should be justified on a case by case basis

21

DER International Seminar

Single Worldwide Certification Process

- A significant discussion at the 17th Annual FAA/JAA International Harmonization Conference, June 2000
- Industry Proposed that the Authorities Pursue a Globally Accepted Design Code and Single Certification Process

22

DER International Seminar

Single Worldwide Certification Process

<u>Today</u>		<u>Future</u>
Harmonizing CAA codes	⇒	One Code adopted world wide
NCAA ANRs Joint Cert Basis	⇒	Joint/single basis defined by NCAA
Validation Programs	⇒	Greater Reliance by CAAs on each other:
– Concurrent or Joint Certification Program		– Confidence/Familiarization with certification process and team – Familiarization with product
NCAA Issues certificate	⇒	NCAA Issues certificate

23

Single Worldwide Certification Process

- Status
 - FAA/JAA have notified ICAO
 - TORs drafted for a working group to explore the issues involved to achieving a single worldwide process
 - Updates to be provided at the FAA/JAA Annual International Harmonization Conference in Geneva, June 2001

24

•
•
•

Maintenance Harmonization

- Part 145 - Repair Station Standards
 - NPRM to harmonize FAR/JAR 145 issued May 1999
 - JAA NPR JAR-145-8 in final stages of adoption
 - Target date for adoption of FAA amendment is April 2001
 - Implementing working procedures for MIP

25

DER International Seminar

• • • • • • • •

•
•
•

Summary

- FAR/JAR Certification requirements largely harmonized
- Remaining differences are being addressed
 - Goal is to have a minimum number of outstanding SRDs
- ACO advisors should be consulted for addressing any differences

26

DER International Seminar


• • • • • • • •

DER International Seminar - January 24-25, 2001
FAA/JAA Type Validation and Role of FAA Designees

o
o
o
o
o
o
o
o
o

FAA/JAA Type Validation

The Role of FAA Designees



DER Seminar on International Issues
Long Beach, CA
January 24 - 25, 2001

o o o o o o o o

o
o
o

Objectives

- **Introduce FAA/JAA Validation Principles**
 - Type Validation Principles (TVP)
 - Post-Type Validation Principles (PTVP)
- **Role of the DER in Validation**

2

DER International Seminar o o o o o o o o

○
○
○

Introduction

Type Validation:

- Certification process
- Establishes compliance of an *imported product* to the importing country's airworthiness requirements

3

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Introduction

Objective:

Ensure that an *imported product* will meet the same *level of safety* with the same *level of confidence* as a product designed, manufactured, and certified in the importing country

4

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Introduction

- **Not all authorities use formal validations; some accept FAA certifications directly.**
- **If validations are required, burden is on exporting authority to support and act on behalf of the importing authority.**

5

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Introduction

Emphasis of Bilateral Validations

**Mutual Authority Trust, Communication,
Cooperation between**

- **Importing Authority - *Validating Authority***
- **Exporting Authority - *Certificating Authority***

6

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Introduction

General Principles

- **Bilateral agreements recognize competence of CA to make compliance determinations against VA requirements**
- **TVP/PTVP provide methods for delegation to CA between FAA and JAA members.**
- **Similar approach/philosophy used for all bilateral partners.**

7

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Introduction

Why TVP/PTVP?

- **Problems with recent FAA/JAA validation activities**
- **TVP/PTVP developed to move FAA/JAA back to the basic concept of mutual authority trust that is the foundation of our bilateral agreements**

8

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Introduction

What are TVP and PTV?

- Formally define FAA-JAA-Applicant interactions and expectations
- (Signed June 1997)
- Define extent of possible VA involvement
- Establish expectation that all VA compliance determinations will be delegated, except when retention is justified

9

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Introduction

- **Implementation Status**
 - FAA/JAA have acted in the spirit of the Principles since June 1997
 - FAA started full implementation of TVP/PTVP following adoption of Notice 8110.70, January 1998
*(Pending Order 8110.TVP, mid-2001 (ECD))
 - JAA started full implementation of TVP/PTVP following completion of training in December 1999

10

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Introduction

Why understand TVP/PTVP?

- **TVP and PTVP lay the ground rules for FAA/JAA interaction in type certification**
- **Designees will need to work within these ground rules**

11

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Type Validation Principles (TVP)

⇒ Applicability

- **Definitions**
- **Project Flow**
- **Roles and Responsibilities**

12

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Applicability

- **Type Certification and Amended Type Certification Programs**
 - Engines, aircraft, and propellers
 - U.S. products seeking JAA acceptance through JAA letter of recommendation for certification

13

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Type Validation Principles (TVP)

- **Applicability**
- ⇒ **Definitions**
 - Validation Basis
 - SRD and non-SRD
 - Validation Item (VI)
- **Project Flow**
- **Roles and Responsibilities**

14

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

Validation Basis

- Set of airworthiness regulations used by the CA and VA to ensure compliance with the VA certification basis

**Validation Basis = CA Cert. Basis +
VA Regulatory differences (SRD, non-SRD) +
VA Exemptions + VA Special Conditions**

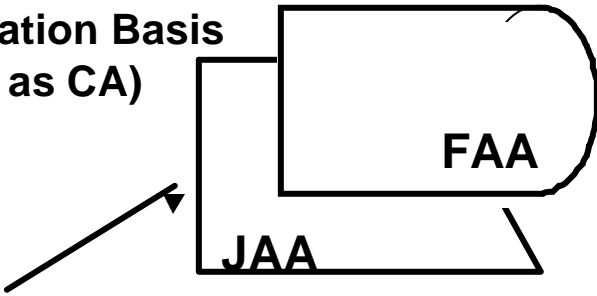
15

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

Validation Basis (FAA as CA)



**JAA SRD and non-SRD (JAA > FAA)
JAA exemptions
JAA special conditions**

16

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○ ○

DER International Seminar - January 24-25, 2001
FAA/JAA Type Validation and Role of FAA Designees

○
○
○

TVP Definitions

SRD and non-SRD

- **Established for the project FAR/JAR amendment pair by Validation Team**
- **Designees are not involved in this process**
- **Based on reference lists established by FAA Standards Staff and JAA Central**

17

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

SRD and non-SRD

- **Significant Regulatory Differences (SRD)**

*May require type design or approved
manual changes or operational
limitations*

- **Non-Significant Regulatory Differences (Non-SRD)**

Regulatory Differences that are not SRD

18

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

SRD and non-SRD

- Compliance with both SRD and non-SRD required
- Significant Regulatory Differences (SRD)

VA may retain compliance determination, when justified

- Non-Significant Regulatory Differences (Non-SRD)

Compliance determination delegated

19

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

Validation Item (VI)

- Design features/ MOC of special interest to the VA
- Define differences between VA and CA methods of compliance
- VI define extent of possible VA involvement in compliance determinations

20

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Definitions

Validation Item (VI)

- The JAA will define all VI in Certification Review Items (CRI)
- A CRI will be used to formalize any JAA retention of compliance determination or reserved involvement
- Designees will need to consider CRI in making compliance determinations for JARs

21

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Type Validation Principles (TVP)

- **Applicability**
- **Definitions**
- ⇒ **Project Flow**
- **Roles and Responsibilities**

22

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

TVP Project Flow

Four Phases of a Validation Program

I. General Familiarization

II. Technical Familiarization

III. Determining VA Involvement

IV. Compliance Determinations

23

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Type Validation Principles (TVP)

- **Applicability**
- **Definitions**
- **Project Flow**
- ⇒ **Roles and Responsibilities**
 - **Reliance on CA**
 - **VA/CA Responsibilities**
 - **ACO/Designee Responsibilities**

24

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

◦
◦
◦

Roles and Responsibilities

Reliance on CA

- The expectation is that, except when retention by VA is justified, the determinations of compliance with the VA's validation basis will be made by the CA
- Determinations are delegated to the CA - *not* directly to the designee

25

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

VA Responsibilities

- Define VA regulatory differences and VI
- Ensure any retention of involvement in compliance determinations is justified
- Maintain open communication with CA team

26

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

CA Responsibilities

- **Act as agent of VA**
 - Support VA familiarization
- **Accept delegation of compliance determinations from VA**
- **Obtain clear understanding of VA SRD, non-SRD, VI**
- **Maintain open communication with VA**

27

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

CA Responsibilities

Determinations delegated to the CA may be made by the

- **Certificating Authority directly**

or

- **CA's legally constituted certification system, (including FAA DER and DOA, at discretion of ACO)**

28

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

FAA ACO Role (FAA as CA)

- **Act as the agent of the JAA**
- **Develop Program Schedules with applicant and JAA**
- **Monitor JAA involvement and maintain schedule awareness**

29

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

FAA ACO Role (FAA as CA)

- **Understand JAA requirements (SRD, non-SRD, VI)**
- **Make delegated compliance determinations for JAA**
- **Provide guidance and direction to designees regarding JAA requirements**

30

DER International Seminar

◦ ◦ ◦ ◦ ◦ ◦ ◦ ◦

◦
◦
◦

Roles and Responsibilities

Designee Role (FAA as CA)

- **Understand JAA compliance requirements**
 - monitor CRI development, as directed by ACO
- **Respect the regulatory differences**
- **Determine compliance with JAA SRD, non-SRD, and VI as directed by ACO**

31

DER International Seminar

◦
◦
◦

Roles and Responsibilities

Designee Role (FAA as CA)

- **Attend meetings, participate in telecons as needed to support understanding of JAA requirements**
- **Respect the communication guidelines**

32

DER International Seminar

○
○
○

Roles and Responsibilities

Communication (FAA as CA)

- **Authority to authority**
 - JAA to ACO → ACO to designee
 - Clarification of JAA requirements will come from ACO
 - JAA will not contact DER directly, without participation or consent of ACO

33

DER International Seminar

○
○
○

Case Study

A JAA team member calls a DER and asks for a copy of a JAR compliance document that the DER is reviewing. The DER should provide the compliance document to the JAA.

- **True**
- **False**

34

DER International Seminar

○
○
○

Case Study - Answer

False: The DER should refer the request to the ACO. Any such requests must come through the ACO. The ACO will contact the DER if the request is justified.

35

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Post-Type Validation Principles (PTVP)

⇒ Introduction

- Applicability**
- Goals**

- Definitions**
- Roles and Responsibilities**

36

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Post-Type Validation Principles (PTVP)

Applicability

- **Modifications to engines, aircraft, and propellers by TC holder only**
- **TC holder is seeking JAA approval for modification**

37

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

-
-
-

PTVP Introduction

Goals

- **Maximize the delegation of design change approvals to the Certifying Authority (CA)**
- **Ensure compliance with Validating Authority (VA) requirements**

38

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Post-Type Validation Principles (PTVP)

- **Introduction**
- ⇒ **Definitions**
 - **Level 1 / Level 2 Categorization**
- **Roles and Responsibilities**

39

DER International Seminar

○
○
○

PTVP Definitions

Level 1 / Level 2 categorization of major design changes

- **VA is notified in advance of Level 1 Major changes, and given an opportunity for involvement**
- **Level 2 Major (and minor) changes are approved by CA against VA certification basis, without VA involvement**

40

DER International Seminar

DER International Seminar - January 24-25, 2001

FAA/JAA Type Validation and Role of FAA Designees

-
-
-

PTVP Definitions

Level 1 Categorization Criteria

- Changes having an effect on the certification basis, or involving new interpretations of requirements, new special conditions, new equivalent level of safety findings, or novel methods of compliance
- Changes that impact a VI and that involve a change to the MOC established in the VI
- Changes that impact a VI for which the VA retained the associated compliance determination during the original certification
- Changes that involve significant revisions to Approved Manuals

41

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

-
-
-

Post-Type Validation Principles (PTVP)

- Introduction
- Definitions
 - Level 1 / Level 2 Categorization
- ⇒ Roles and Responsibilities

42

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

PTVP - Roles and Responsibilities

VA Involvement in L1 Changes

- **Involvement commensurate with complexity and uniqueness of design change**
- **Involvement established per TVP**
 - Establishment of new VI if needed
 - Clear definition of VA differences
 - Expectation of reliance on CA

43

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

○
○
○

PTVP - Roles and Responsibilities

Designee Involvement

- **Involvement of designee only if delegated by ACO**

44

DER International Seminar

○ ○ ○ ○ ○ ○ ○ ○

DER International Seminar - January 24-25, 2001
FAA/JAA Type Validation and Role of FAA Designees

○
○
○

Summary

Type / Post-Type Validation Principles

- Formally define FAA - JAA - Applicant interactions and expectations
- Establish expectation that VA will delegate all compliance determinations to CA, except when justified

45

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○

○
○
○

Summary

Type / Post-Type Validation Principles

- Determinations delegated to FAA may be made by the FAA or its Designees
- FAA team is responsible for understanding JAA requirements
- Authority-to-Authority communication !

46

DER International Seminar ○ ○ ○ ○ ○ ○ ○ ○

•
•
•
•
•
•
•
•

Understanding FAA's Delegation of Findings to Foreign Regulations



DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001

• • • • • • • •

•
•
•

Objectives

- Understand
 - Delegation Process
 - DER Qualifications
 - Communications Flow
 - DER Responsibilities
 - FAA Responsibilities
 - Approval procedures

2

DER International Seminar • • • • • • • •

Understanding FAA's Delegation of Findings to Foreign Regulations

Delegation Process

- Requires Delegation from Validating Authority to the FAA
 - Under a BASA IPA, from the JAA Project Manager, or other specific project agreement
- Works the same with foreign regulations as with FARs
 - JARs, Russian Regulations etc.
- It is FAA's decision when/if to delegate findings to DERs/DOA

3

DER International Seminar

Delegation Process

- Delegation to DER requires:
 - Specific authorization by the ACO based on DER qualifications
 - Evolution to delegation



4

DER International Seminar

•
•
•

DER Qualifications

- Qualification Unique to Authorization of Foreign Regulations
 - Demonstrated knowledge of the foreign regulations
 - Participation on previous validations with the foreign authority



5

DER International Seminar

•
•
•

DER Qualifications

- General Qualifications
 - Good communication with project ACO
 - Core DER qualifications
 - Trust
 - Cooperative attitude
 - Good working relationship with FAA
 - Unquestionable integrity
 - Sound judgment



DER International Seminar

•
•
•

Case Study #1

- A DER that has authority to approve Data for FAR part 23 has the same authority to approve JAR 23 since the regulations are harmonized?
 - True
 - False

7

DER International Seminar

•
•
•

Case Study #1 Answer

- False - Although the DER Handbook considers harmonized regulations the same as FARs, the delegation to approve data for JAR 23 must come from the FAA ACO as a special authorization and can only be given to a qualified DER.

8

DER International Seminar

Understanding FAA's Delegation of Findings to Foreign Regulations

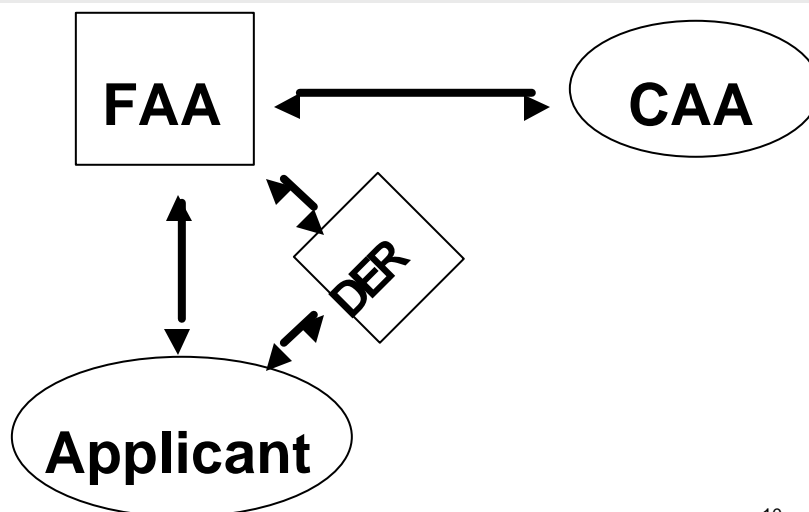
Communications Flow

- All communication is through FAA
 - Delegation from CAA is to FAA
 - Delegation from FAA to DER
 - Information on acceptable method of compliance comes from CAA to FAA
 - Finding of compliance comes back from DER to FAA (if delegated)

9

DER International Seminar

Communication Flow



10

DER International Seminar

•
•
•

Communication Flow (JARs)

- In those cases where there are differences between the FARs and JARs or where VI's are imposed
 - The JAA team is to provide the ACO required information for acceptable means of compliance
- For projects that are certified under national procedures instead of joint procedures (e.g. STCs)
 - The National Aviation Authority (NAA) is to provide the ACO the required information for acceptable means of compliance.

11

DER International Seminar

•
•
•

Case Study #2

- A DER looking for guidance on acceptable method of compliance for a JAR should contact the JAA directly.
 - True
 - False

12

DER International Seminar

•
•
•

Case Study #2 Answer

- False - The DER should obtain any guidance on delegation or methods of compliance from the ACO. The FAA ACO/Standards Staff will obtain the information from the JAA as necessary.

13

DER International Seminar

•
•
•

DER Responsibilities

- Delegation of authority comes from FAA to DER
- No direct DER contact with the CAA on delegation, finding of compliance, approvals, clarifications, etc.
- Seek clarifications from FAA advisor/project engineer
- DERs only approve data in accordance with the authority granted by the FAA
 - All FAA designee procedures, processes, record keeping, tracking, etc. apply

14

DER International Seminar

Understanding FAA's Delegation of Findings to Foreign Regulations

DER Responsibilities

- What can the DER approve?
 - Data related to the additional technical requirements
 - Only data for specific models which the DER is authorized
- Which regulations should be used?
 - Use FAR for harmonized regulations or when FAR requirement is more stringent
 - Use foreign regulations when there are regulatory differences and the foreign requirements are more stringent than the FARs.

15

DER International Seminar

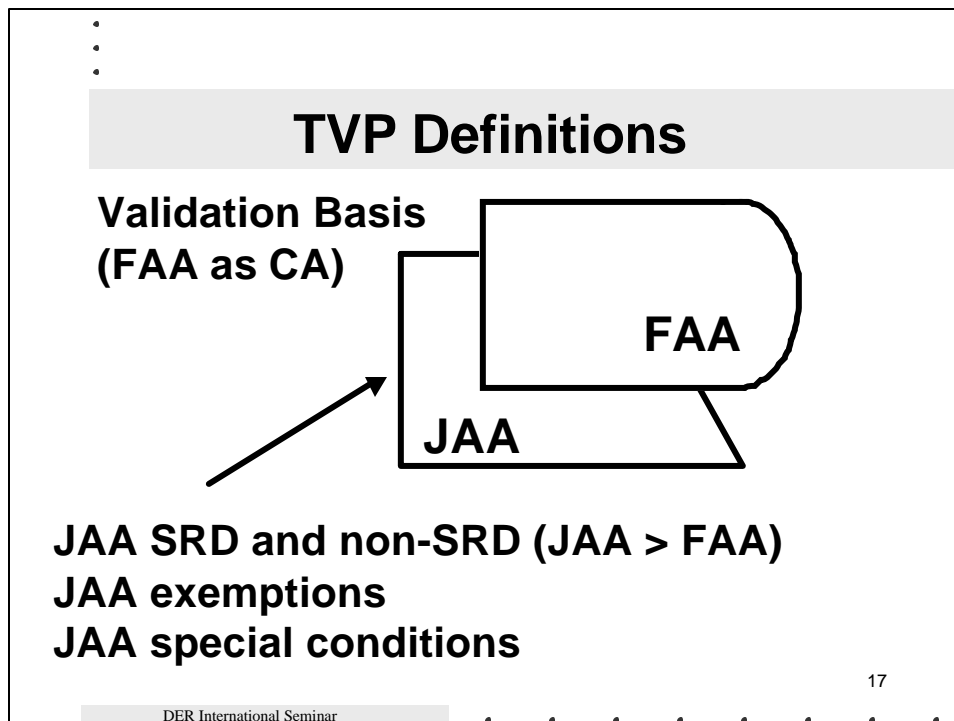
DER Use of 8110-3

- Used to approve or recommend approval with FARs or foreign regulations as authorized by the ACO
- Applicable foreign regulations should be clearly identified separate from the FARs on 8110-3s
 - ACOs may require additional identification of VI's and Significant Differences such as:
"Identify VI's and Significant Differences in foreign regulations by underlining them (e.g. JAR 25.1309, 25.1587, etc.)"

16

DER International Seminar

Understanding FAA's Delegation of Findings to Foreign Regulations



- ...
- ### 8110-3 Distribution
- Original goes to the project ACO
 - A copy goes to the appointing ACO if different from project ACO
 - If “Recommend Only” DER must provide substantiating data to project ACO
 - If data is “Approved” DER will make substantiating data available to ACO on request
 - ACO retains 8110-3s in official project file
- 18
- DER International Seminar

Understanding FAA's Delegation of Findings to Foreign Regulations

•
•
•

Unacceptable Practices

- DER findings made directly for a CAA
 - DER only authorized to act for the FAA
- DER findings on a CAA form
 - DER can only sign FAA form 8110-3

19

DER International Seminar

•
•
•

FAA Responsibilities

- Designee supervision
 - Includes review of any 8110-3's approved to foreign regulations
- Transmit final approval for the compliance finding to the CAA
 - FAA confirms that compliance has been demonstrated and findings have been made.
- Provide orientation/training for designees

20

DER International Seminar

⋮

Approval Procedures

- Design Changes by the TC Holder (TC Amendment)
 - FAA is responsible for approving design
 - Design change is based on CAA requirements
 - Approval by similarity or identity must be based on a prior CAA approval of the same design change

21

DER International Seminar

⋮

FAA Accepted Foreign Requirements

- JAR-VLA is an example of where the FAA has adopted a JAR as a U.S. airworthiness standard.
- JAR VLA is treated just like a FAR not like a foreign requirement
 - Exception: a validation project for another CAA who also uses JAR VLA

22

DER International Seminar

•
•
•

Summary

- Although DERs are delegated to approve data on behalf of the FAA, the FAA is ultimately responsible for the certification.
 - To work directly with a CAA and separate the FAA from the certification programs would be to ignore, rather than exercise, that responsibility.
- DER are held accountable to act on behalf of the FAA and to follow the same guidance, policy, and methods as the ACO.

23


DER International Seminar

• • • • • • • •

Foreign Registered Aircraft

•
•
•
•
•
•
•
•

Foreign Registered Aircraft



**DER Seminar on International Issues
Long Beach, CA
January 24-25, 2001**

• • • • • • • •

•
•
•

Objectives

- Understand
 - Civil Aviation Authority responsibilities
 - TC Holder responsibilities
 - DER's role as FAA designee
 - New policy on DER involvement
 - Repairs vs. Alterations
 - Procedures for working in foreign countries

2

DER International Seminar • • • • • • • •

•
•
•

Airworthiness Responsibility

- ICAO places responsibility for airworthiness of aircraft with the **State of Registry**
 - N-registered aircraft are FAA's responsibility
 - Foreign-registered aircraft are not the responsibility of the FAA,
 - Regardless of whether or not they are U.S. designed products
 - DERs act only on behalf of the FAA

3

DER International Seminar

•
•
•

Airworthiness Responsibility

- Per ICAO, for aircraft in commercial operation:

“All **modifications and repairs** shall be shown to comply with the airworthiness requirements acceptable to the State of Registry. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.” Annex 6, Part I, Para. 8.6

4

DER International Seminar

•
•
•

Airworthiness Responsibility

- ICAO guidance further states that a major modification or repair to an aircraft should be accomplished in accordance with design data **approved by, or on behalf of, or accepted by the airworthiness authority of the State of Registry...**
- State of Registry may accept FAA findings as specified in a BASA/IPA or other formal agreement
 - This must be an authority-to-authority document.
 - For repair data, bilateral acceptance applies to U.S. State of Design products only (except with Canada).

5

DER International Seminar

•
•
•

Airworthiness Responsibility

- If the design data is not directly approved by the State of Registry, then for a DER to be involved, the “agreement” must = a delegation from the CAA of the State of Registry to the FAA.
 - It does not include agreements made between a CAA and DERs/individuals, operators, suppliers, manufacturers, or even the TC holder.

6

DER International Seminar

•
•
•

Airworthiness Responsibility

- **Per ICAO, the State of Design does not have a role after export of the aircraft, except for addressing mandatory corrective actions/unsafe conditions**
 - - State of Registry is controlling
 - Organization responsible for the type design (TC holder) may be requested to assist the applicant and State of Registry with design changes.
 - If any doubt as to capabilities of an applicant for major modification or repair, then the State of Registry may consult with the State of Design.

7

DER International Seminar

•
•
•

Expectations

- DER exists to assist the FAA and must work within authorized areas of responsibility
- FAA must take control (liability)
 - limit the use of DER approvals outside FAA projects
- Aviation authorities must step up to their responsibilities under ICAO

8

DER International Seminar

DER International Seminar - January 24-25, 2001

Foreign Registered Aircraft

•
•
•

TC Holder Responsibilities

- Continued Airworthiness (Regulatory)
 - Report unsafe conditions
 - Respond to notification of unsafe condition
 - Provide design changes to correct
- Customer support (Business)
 - Design changes
 - Repairs

9

DER International Seminar

•
•
•

TC Holder Responsibilities

- These activities are certificate holder/company responsibilities
 - Not FAA designee responsibilities
- Can only use DERs to the extent allowed by the FAA
 - Type Validation
 - Post Production Changes
 - Repair data

10

DER International Seminar

Foreign Registered Aircraft

•
•
•

Use of DERs

- **Type Validation**
 - Approval delegated from CAA to FAA and from FAA to DER
 - Requires FAA authorization to DER
 - Limitations are specified by FAA
 - Certain models
 - May be limited to a specific project
 - Results in a foreign TC and allows for foreign registry

11

DER International Seminar

•
•
•

Use of DERs (cont.)

- **Post Production Changes**
 - FAA approved service bulletins etc.
 - TC amendments, limited to TC holder
 - Supplemental Type Certificate
 - Not restricted to TC Holder
 - Requires ACO (or DAS project)
 - May use foreign registered aircraft if allowed by ACO

12

DER International Seminar

•
•
•

Use of DERs (cont.)

- Post Production Changes (cont.)
 - Field Approval
 - Not applicable to foreign-registered aircraft
 - 337 is only a record of work performed
 - Data approval for foreign registered aircraft is not an appropriate use of DER resources

13

DER International Seminar • • • • • • • •

•
•
•

Use of DERs (cont.)

New Policy on Foreign-Registered Aircraft

- DER's may approve data on foreign-registered aircraft, **IF**:
 - US operator of foreign-registered aircraft under 121.153(c) or 135.25(d). These operators may use DERs to approve data to FARs
 - Foreign registered aircraft is the prototype article for a multiple STC and the ACO has coordinated the project with the CAA of registry
 - U.S. manufactured aircraft and the acceptance of DER repair data is covered by a BASA/IPA (e.g., U.S.-Canada, U.S.-Germany, etc)

14

DER International Seminar • • • • • • • •

Foreign Registered Aircraft

•
•
•

Use of DERs (cont.)

New Policy on Foreign-Registered Aircraft

Repair data

- TC holder's DERs only may be authorized to approve data for major repairs of any products for which they hold the TC (including foreign registered aircraft or those products installed on foreign registered aircraft)
 - No consultant or other company DERs working with repair data on foreign-registered products
 - Will be described in update to Order 8110.37

15

DER International Seminar • • • • • • • •

•
•
•

Repairs vs. Alterations

- Repairs restore an unairworthy aircraft to airworthy condition
 - Repairs are closely related to continued airworthiness (a responsibility of the TC holder)
- Alterations modify an aircraft using approved changes to type design
 - Alterations on foreign-registered aircraft must meet the requirements of the State of Registry (certification basis)

16

DER International Seminar • • • • • • • •

Foreign Registered Aircraft

⋮

Alterations & DERs

- Alterations to foreign registered aircraft **only** via TC amendment/STC project
 - ACO Involvement
 - Coordination with/acceptance by State of Registry
 - DER approval is for FAA certificate
- Alterations beyond TC/STC project
 - No ACO involvement
 - No FAA approval, so no reason for DER involvement

17

DER International Seminar

⋮

Foreign Registered Aircraft Alterations & DERs

- TC Amendments (Service Bulletin etc.)
 - May use a foreign-registered prototype article
 - Will be closely scrutinized by FAA for applicability to US registered aircraft
 - TCA's are ACO projects so they will follow FAA policy on authorized delegation
 - TC activities (e.g. testing) outside the U.S. must be coordinated with the local CAA

18

DER International Seminar

Foreign Registered Aircraft

Foreign Registered Aircraft Alterations & DERs

- Supplemental Type Certificates (STCs)
 - Multiple STC using a foreign-registered prototype article
 - Will be closely scrutinized by FAA for applicability to US registered aircraft
 - STC's are ACO (or DAS) projects so they will follow FAA policy on authorized delegation
 - STC activities (e.g. testing) outside the U.S. must be coordinated with the local CAA

19

DER International Seminar

•
•
•

DER v. Individual Business

- Design change/deviation/approved data work on behalf of another CAA (or foreign operator, etc.) is not DER work; it is private consulting work.
- If a DER wants to conduct business for another CAA, he/she should:
 - 1) Apply to that CAA for recognition/authorization
 - 2) Work according to that authorization (no use of FAA link, DER #, FAA 8110-3, etc.)
 - 3) Be accountable only to that CAA for the work

20

DER International Seminar

DER International Seminar - January 24-25, 2001

Foreign Registered Aircraft

•
•
•

Parts/Component Activity

- Properly authorized DER still allowed to make approvals within their authority
- Requires DER understanding of their authorization
 - Authorizations should be more specific
 - One-time versus multiple repairs
 - Use of multiple repairs on articles that will be installed on foreign-registered aircraft could become an issue

21

DER International Seminar • • • • • • • •

•
•
•

8110-3 on Foreign-Registered

- Aircraft Identification
- Use of Disclaimer Statement

“Compliance with the Federal Aviation Regulations noted on this FAA Form 8110-3 is provided in support of the {insert CAA name of CAA of country of registry}. Acceptance of these findings is at the discretion of the {insert CAA name} “
- No DER approvals other than 8110-3
 - No foreign forms
 - No 337
 - No logbook entries

22

DER International Seminar • • • • • • • •

•
•
•

Case Study #3

- A DER is contacted to work for a foreign repair station and approve data to foreign regulations. The foreign authority will accept the DER's expertise as a representative of the local CAA. They do not expect the DER to use references to FARs or their DER number. Is this acceptable?
 - Yes
 - No

23

DER International Seminar

•
•
•

Case Study #3 Answer

- Yes. As long as the DER/individual and the CAA have an agreement and CAA understands that:
 - the work is not an FAA approval
 - the individual is not acting as a DER (no DER #, no FAR reference).

Then the finding can be made at the discretion of the foreign authority.

24

DER International Seminar

Foreign Registered Aircraft

•
•
•

Summary

- Airworthiness of foreign-registered aircraft is the responsibility of the foreign authority.
 - This includes all data approvals.
- TC holder responsibilities \neq DER responsibilities.
- DERs must operate within their FAA authorization only.

FAA wants DERs to only do approvals that the FAA would normally do!

25

DER International Seminar

• • • • • • • •

• • • • •

• • •

- 2

•
•
•

BACKGROUND (cont.)

These types of Repair Data include:

- Service Bulletins
- Structural Repair Manuals
- Vendor Manuals
- Aircraft Flight Manuals
- Overhaul and Maintenance Manuals
- Specific Repair Data (Major/Minor)
- Fatigue and Damage Tolerance items

3

DER International Seminar

•
•
•

BACKGROUND (cont.)

However, the BAA did not adequately address acceptance of repairs done on each other's products or on third country products-

e.g. where the Bilateral Partner is not the State of Design (but the other partner is) and

where neither partner is the State of Design.

4

DER International Seminar

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

In 1994, the FAA and TCCA began working on repair data issues:

- Increasing number of repairs were being performed on aircraft registered to the other authority.
- Designees were approving data in unclear situations.
- BAA included acceptance of Canadian maintenance.
- Close geographic relationship allowed frequent FAA/TCCA discussion.

5

DER International Seminar

•
•
•

Repair Data Approval Agreement

Memorandum of Understanding signed May 7, 1998 between FAA/TCCA.

- Issued to FAA employees via memo.
- Drafted additional guidance for FAA/TCCA personnel to implement this MOU.
- FAA Notice is pending (Federal Register availability notice will accompany it).

6

DER International Seminar

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

RDA Concepts/Principles

- Reciprocal acceptance of data is advantageous to both authorities.
- All regulations used by both authorities are sufficiently and will continue to be harmonized to the degree necessary to allow reciprocal acceptance.
- Designee can approve repair data on behalf of authority in certain situations.
 - Outlines processes and documents/forms used by authorities to approve repairs.

DER International Seminar

7

•
•
•

MOU Details

- The MOU allows FAA or TCCA personnel to accept repair approvals from the other authority, or in certain cases their designees, on products where the U.S. or Canada is the State of Design

DER International Seminar

8

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

MOU Details

- In general the **FAA may accept**
 - repair design approvals issued by either TCCA's Aircraft Certification Branch (including regional offices) or an appropriately authorized TCCA delegate on aeronautical products where Canada is the State of Design
 - repair design approvals issued by TCCA's Aircraft Certification Branch (including regional offices) only on aeronautical products where the United States is the State of Design.

9

DER International Seminar

•
•
•

MOU Details

- In general, the **TCCA may accept**
 - repair design approvals issued by either FAA's ACO/ECO or an appropriately authorized FAA designee on aeronautical products where the US is the State of Design
 - repair design approvals issued by FAA's ACO/ECO only on aeronautical products where Canada is the State of Design.
 - DERs can only recommend approval or, if they approve the data, an additional letter from the ACO/ECO is still required.

10

DER International Seminar

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

MOU Details

- Findings of compliance or approvals issued by an FAA designee shall be performed in accordance with the designee's scope of authority and the appropriate FAA orders, rules, and regulations.
- Either authority retains the right to request a review of any data approved by the other authority.

11

DER International Seminar

•
•
•

MOU Details

- This MOU does not address
 - manufacturing/production,
 - approval for return to service,
 - use of FAA Form 337,
 - installation acceptability, or
 - Export Airworthiness approvals.
- Also, does not yet address repair design data developed to perform repairs on aeronautical products for which the State of Design is a country other than Canada or the United States.

12

DER International Seminar

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

Summary

Acceptable FAA DER Approvals

U.S. Product

- Directly by FAA DER

Canadian Product

- Via FAA ACO/ECO only

The MOU expands the definition of “FAA approved data” per 14 CFR 43 to include TCCA-approved data.

13

DER International Seminar

•
•
•

Current Activity

- FAA/TCCA working group continues to look at expanding reciprocal acceptance:
 - Investigating the acceptance of design approval directly from FAA/TCCA delegated person/organization on Canada/US State of Design Products
 - Evaluating acceptance of repair data on products where neither the U.S. or Canada is the State of Design.

14

DER International Seminar

DER International Seminar - January 24-25, 2001
**DER Activities Under the U.S./Canada Memorandum of Understanding on
Acceptance of Repair Data**

•
•
•

Future Phase

- Under current bilateral TCCA does not accept field approvals (FAA Form 337) without further review.
 - In the future, the FAA/TCCA will investigate the requirements that would enable the acceptance of “field approvals” (FAA Form 337, Block 3 approvals) on Canadian-registered aircraft where Canada is the State of Design.

15

DER International Seminar

•
•
•

MOU Summary

- Further details, including procedures, tables and flowcharts will be available in FAA Notice (draft 8110.MUT).
- No similar agreements have been negotiated with any other bilateral partners.

16

DER International Seminar